TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application No.	09/805,755
Filing Date	March 13, 2001
First Named Inventor	Samson X. Huang
Art Unit	2673
Examiner Name	Tom V. Sheng
Total Number of Pages in This Submission	
Attorney Docket Number	42390P10038

ENCLOSURES ***(check all that apply)***

- [X] Fee Transmittal Form
  - [X] Fee Attached
- [ ] Amendment / Response
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
  - [ ] PTO/SB/08
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Basic Filing Fee
  - [ ] Declaration/POA
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s)
- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [X] Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [X] Other Enclosure(s) *(please identify below):*

Check in the amount $500.00
Return postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Paul A. Mendonsa, Reg. No. 42,879 BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	July 8, 2005

CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Typed or printed name	Katherine Jennings		
Signature		Date	July 8, 2005

Based on PTO/SB/21 (04-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 06/04/2004.
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT ($) 500.00

Complete if Known	
Application Number	09/805,755
Filing Date	March 13, 2001
First Named Inventor	Samson X. Huang
Examiner Name	Tom V. Sheng
Art Unit	2673
Attorney Docket No.	42390P10038

METHOD OF PAYMENT *(check all that apply)*

☒ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. ☒ Credit any overpayments

FEE CALCULATION

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500.00
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	

Other fee (specify) _____

SUBTOTAL (2) ($) 500.00

SUBMITTED BY Complete (if applicable)

Name (Print/Type)	Paul A. Mendonsa	Registration No. (Attorney/Agent)	42,879	Telephone	(503) 439-8778
Signature				Date	07/08/05

Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004.
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Samson X. HUANG, et al.

Serial No.:	09/805,755	Group Art Unit:	2673
Filed:	March 13, 2001	Examiner:	T. Sheng
FOR:	SYSTEM AND METHOD FOR INTENSITY CONTROL OF A PIXEL		

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant submits this appeal brief, thus perfecting the notice of appeal filed on May 16, 2005.

The required headings and subject matter follow.

(i) *Real party in interest.*

This case is assigned of record to Intel Corporation, who is the real party in interest.

(ii) *Related appeals and interferences.*

There are no known related appeals and / or interferences.

(iii) *Status of claims.*

Claims 1-15 are pending in the application. Claims 7-15 stand rejected. The rejections of claims 7-15 are being appealed.

(iv) ***Status of amendments.***

An after final amendment was filed April 15, 2005. The advisory action mailed May 2, 2005 indicates that the amendment is not entered. The attached Claims appendix reflects the current status of the claims.

(v) ***Summary of claimed subject matter.***

Some embodiments of the invention involve a system for intensity control of a pixel, including a first subpixel (e.g. outer subpixel 102 in Fig. 1; see page 2, lines 20-22), a second subpixel (e.g. inner subpixel 104 in Fig. 1; see page 2, lines 20-22), the first subpixel and the second subpixel having a light output ratio of about 1:1 (e.g., see page 3, lines 2-6); and a driver (e.g. driver 106 in Fig. 1; see page 3, lines 7-13) to apply a pulse-width modulated electrical waveform to the first subpixel and the second subpixel, the modulated waveform having a first pulse and a second pulse, the first pulse being applied to the first subpixel and the second pulse being applied to the first subpixel and the second subpixel (e.g., see Fig. 2 and related description on page 3, lines 14-21).

(vi) ***Grounds of rejection to be reviewed on appeal.***

I. Claims 7-10 and 12-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,417,864 (Jones).

II. Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jones in view of U.S. Patent No. 5,124,695 (Green).

(vii) ***Argument.***

I. The rejection of claims 7-10 and 12-15 under 35 U.S.C. § 102(e) as being anticipated by Jones is in error and should be reversed.

Claims 7-10 and 12-15

The Examiner relies on an unreasonably broad interpretation of the term 'about' to sustain the rejection. Specifically, on page 5 of the final office mailed February 16, 2005, the Examiner asserts:

> Per the Merriam-Webster's Collegiate Dictionary, tenth edition, the term "about" as related to numerical subject means "reasonably close to". Because the term "about" is relative as defined above, "about 1:1" could very reasonably encompass the range of say 1:1 to 1:5.

The Examiner errs by referring to an extrinsic definition without first considering the intrinsic evidence for what the term 'about' would mean to one skilled in art having read the present specification. One skilled in the art would not need to refer to a dictionary or other external source to understand that the term 'about', as used in the present specification and claims means only that an absolutely precise ratio is not required. Ratios within typical manufacturing tolerances or otherwise reasonably close to the stated ratios would be considered by those skilled in the art to be within the scope of the meaning of the term 'about'. One of ordinary skill in the art would not need to refer to a dictionary to conclude that that a ratio of 1:5 (as asserted by the Examiner) is not the same as or reasonably close to a ratio of about 1:1 (as described in the specification and recited in various of the claims).

Moreover, the Examiner's interpretation of what might be considered 'reasonably close to' the stated ratio fails to consider the context of the term. Again, claim terms should be read in light of the specification. In the proper context of the specification, one of ordinary skill in the art would appreciate that ratios of 1:1, 2:1, 4:1, and so on are significant in the context of the present specification. For the various embodiments described in the specification, a ratio which is reasonably close to 1:1 would not be

considered reasonably close to 2:1 or 4:1. For example, the Examiner's asserted ratio of 1:5 would not be considered reasonably close to the recited ratio of 1:1.

Because the Examiner has not applied proper claim construction and because the Examiner's claim construction is not reasonable, the rejection should be reversed.

Claims 7, 12 and 13

In order to anticipate, the reference must identically disclose each and every claim recitation. Claim 7 recites the first subpixel and the second subpixel having a light output ratio of about 1:1. Claim 12 recites that the first subpixel and the second subpixel have a light output ratio of about 1:1. The office action admits that Jones describes a ratio of 2:1, but asserts that such disclosure identically describes the recited ratio of about 1:1. Applicants submit that the disclosed ratio of **double** (2:1) does not teach or suggest the recited ratio of about 1:1. Accordingly, claims 7 and 12 and their dependent claims 8-10 and 13-15 are not anticipated by and are patentable over Jones and the rejection should be reversed.

Claim 8

Claim 8 recites the first pulse and second pulse being of about equal width. The office action relies on TD1 and TD4 for allegedly identically disclosing this recitation. However, TD4 is **four** times as long as TD1. Applicants submit that the disclosed TD1 and **four** times longer TD4 do not teach or suggest the recited first pulse and second pulse being of about equal width. Accordingly, claim 8 is separately patentable over Jones and the rejection should be reversed.

Claim 9, 14 and 15

Claim 9 recites a third pulse being about twice the width of the first pulse. Claim 14 recites a third electrical pulse with a second width about twice the first width. Claim

15 recites a third electrical pulse with a second width about twice the first width. The office action relies on TD1 and TD16 for allegedly identically disclosing these recitations. However, TD16 is **sixteen** times as long as TD1. Applicants submit that the disclosed TD1 and **sixteen** times longer TD16 do not teach or suggest the recited third pulse being about twice the width of the first pulse.

Even using the Examiner's own unreasonable construction, the term 'about' may "reasonably encompass" at most five times the stated ratio. The ratio of **16:1** relied upon for allegedly identically describing the recited ratio is unreasonable even using the Examiner's construction. Accordingly, claims 9, 14, and 15 are separately patentable over Jones and the rejection should be reversed.

Claim 10

With respect to claim 10, the Examiner makes an unsupported assertion which is insufficient to establish evidence of anticipation. Clarification of the rejection was requested, but not provided. The Examiner has the burden in the first instance to establish anticipation by identifying the portion of the reference which allegedly describes each and every claim recitation. The Examiner has failed to meet this burden and accordingly the rejection should be reversed.

In any event, Jones appears to be silent with respect to any 'amplitude modulation' mentioned in the Examiner's rejection. Because Jones fails to teach or suggest the first pulse and second pulse being of unequal amplitude, claim 10 is separately patentable over Jones and the rejection should be reversed.

II. The rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Jones in view of Green is in error and should be reversed.

Claim 11

With respect to claim 11, Green, which is relied on for other aspects, fails to make up for the above-noted deficiencies in Jones. Accordingly, claim 11 is patentable over Jones in view of Green.

Because neither Jones nor Green, individually or in combination, teach or suggest a first subpixel and a second subpixel having a light output ratio of about 1:1, claim 11 is patentable over Jones in view of Green and the rejection should be reversed.

CONCLUSION

In view of the foregoing, favorable reconsideration and reversal of the rejections is respectfully requested. Early notification of the same is earnestly solicited. If there are any questions regarding the present application, the Examiner and / or the Board is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

July 8, 2005
Date

/Paul E. Steiner/
Paul E. Steiner
Reg. No. 41,326
(703) 633 - 6830

Intel Americas
LF3
4030 Lafayette Center Drive
Chantilly, VA 20151

(viii) ***Claims appendix.***

1. A system for intensity control of a pixel having 2^N gray-scale tones, comprising:

a pixel having 2^s subpixels, two of the subpixels with the lowest light output having a light output ratio of about 1:1; and

a driver to apply a pulse-width modulated waveform to the subpixels, the modulated waveform having N-s pulses of different pulse widths combined to provide the 2^N gray-scale tones,

where N is a positive integer and s is a positive integer having a value less than N.

2. The system of claim 1, the least-significant pulse width and the next-to-the-least-significant pulse width each have a width of $2^s/2^N$.

3. The system of claim 2, the least-significant pulse width being applied to a one of the two subpixels with the lowest light output to obtain a first gray-scale tone.

4. The system of claim 2, the next-to-the-least-significant pulse width being applied to the two subpixels with the lowest light output to obtain a second gray-scale tone.

5. The system of claim 2, the least-significant pulse width being applied to a one of the two subpixels with the lowest light output and the next-to-the-least-significant

pulse width being applied to the two subpixels with the lowest light output to obtain a third gray-scale tone.

6. The system of claim 1, the 2^s subpixels being concentric.

7. A system for intensity control of a pixel, comprising:

a first subpixel;

a second subpixel, the first subpixel and the second subpixel having a light output ratio of about 1:1; and

a driver to apply a pulse-width modulated electrical waveform to the first subpixel and the second subpixel, the modulated waveform having a first pulse and a second pulse, the first pulse being applied to the first subpixel and the second pulse being applied to the first subpixel and the second subpixel.

8. The system of claim 7, the first pulse and second pulse being of about equal width.

9. The system of claim 8, the modulated waveform having a third pulse being about twice the width of the first pulse, the third pulse being applied to the first subpixel and the second subpixel.

10. The system of claim 8, the first pulse and second pulse being of unequal amplitude.

11. The system of claim 7, the first subpixel and the second subpixel being concentric.

12. A method of intensity control of a pixel, comprising:

applying a first electrical pulse with a first width to a first subpixel of the pixel to produce a first gray-scale tone; and

applying a second electrical pulse with the first width to the first subpixel and a second subpixel of the pixel to produce a second gray-scale tone,

wherein the first subpixel and the second subpixel have a light output ratio of about 1:1.

13. The method of claim 12 further comprising applying the first pulse to the first subpixel and the second pulse to the first subpixel and the second subpixel to produce a third gray-scale tone.

14. The method of claim 12 further comprising applying a third electrical pulse with a second width about twice the first width to the first subpixel and the second subpixel to produce a fourth gray-scale tone.

15. The method of claim 12 further comprising applying the first pulse to the first subpixel and a third electrical pulse with a second width about twice the first width to the first subpixel and the second subpixel to produce a fifth gray-scale tone.

16-22. (cancelled).

(ix) ***Evidence appendix.***

None.

(x) ***Related proceedings appendix.***

None.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage [illegible] envelope addressed to Commissioner for Patents, P.O. Box [illegible], VA 22313 on:

July 8, 2005

Katherine Jennings

Name of Person Mailing Correspondence

Katherine Jennings July 8, 2005

Signature Date